AN EVALUATION OF THE APPLETON ENGINE COMPANY FIRE PREVENTION INSPECTION PROGRAM

EXECUTIVE DEVELOPMENT

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ABSTRACT

There has been an increased recognition that fire prevention promises greater benefit per dollar then fire suppression. To improve the image of the fire service and boost productivity, fire departments have instituted a number of programs at the engine company level. One very popular program has been engine companies conducting fire prevention inspections.

The Appleton Fire Department implemented such a program in 1986 to improve its image and meet the requirements of conducting twice per year inspections of all public buildings and places of employment. The problem prompting this research was changes that have occurred within the department which have impacted on the time availability for conducting inspections. Historical and evaluative research methods were utilized to answer the following questions. Is the current Engine company inspection program beneficial for the Appleton Fire Department? Does the Appleton Fire Department Engine company inspection program meet the requirements of the State of Wisconsin statues? Are there program changes that can be made that would improve the current program? The purpose of this research paper was to identify if changes are needed in the current program which will improve the service provided to our constituents.

In conducting the research for the paper numerous areas of concern were identified. Most importantly, it was identified that the use of quotas or mandated inspection frequencies can create an atmosphere which leads to sloppy inspections do to backlogs. The lack of inspection knowledge was also identified as a concern.

The recommendations of this study express the need to reduce the number of inspections which

would provide more time to conduct quality inspection of facilities. Provide training for firefighters and conduct annual reevaluation of facilities to determine proper inspection frequency.

TABLE OF CONTENTS

| | PAGE |
|--|------|
| Abstractii | |
| Table of Contentsiii | |
| Introduction1 | |
| Background and Significance | |
| Literature Review5 | |
| Procedures | |
| Results12 | |
| Discussion | |
| Recommendations | |
| References | |
| | |
| APPENDICES | |
| Appendix A- Appleton Fire Department Inspection Questionnaire21 | |
| | |
| TABLES | |
| Table 1- Statistical comparison Appleton Fire Department 1988-199723 | |

INTRODUCTION

In many communities, in service fire suppression personnel conduct most or all regular inspections. The inspection process helps familiarize fire company personnel with individual buildings and locations within their jurisdictions. The fire prevention division may help to obtain compliance by building owners after violations are located by fire companies.

The Appleton Fire Department Fire Prevention Bureau is responsible for the completion of fire inspections in 2111 fixed occupancies. In 1997, a total of 4088 inspections were conducted by the Appleton Fire Department. In addition to conducting fire inspections, the division is also responsible for fire cause determination, building construction plan review, fire suppression system plan review and regulating the storage of petroleum products in underground and above ground storage tank systems. In 1986, then Fire Chief Richard Davis implemented an Engine Company fire inspection program to assist fire prevention with the completion of the state mandated fire inspections.

This Engine Company inspection program has operated for twelve years and has been successful in accomplishing the original goal of compliance with State of Wisconsin mandated fire inspection requirements. The problem prompting this research is changes that have occurred in the Appleton Fire Department which have impacted the time availability for conducting Engine Company inspections. Changes include the increase in response area, an increase in the number of inspect able properties and the institution of additional programs such as public education and regional hazardous materials response. A emergency medical first responder response program will begin on July 1, 1998, the implementation of this program will generate a 100% increase in the current calls for service.

The purpose of this research was to evaluate the current Engine Company inspection program and to evaluate changes that could be implemented to improve the program and to address the main question of time availability for conducting inspections. Historical and evaluative research methods were used in addressing the following questions:

- 1. Is the current Appleton Fire Department Engine company inspection program beneficial for the Appleton Fire Department?
- 2. Does the Appleton Fire Department Engine Company inspection program properly meet the requirements of the State of Wisconsin statue pertaining to the completion of fire inspections?
- 3. Are there program changes that can be made that would improve the current program?

BACKGROUND AND SIGNIFICANCE

Fire prevention activities have been identified as an valuable service perform by the fire service nationwide. This service helps identify fire hazards and provides an educational tool for teaching fire prevention procedures. "There is an increasing recognition that fire prevention promises greater benefit per dollar then fire suppression options" (Evitts,1993, pg.5). Although fire prevention services have been identified as valuable, they are not conducted always as a voluntary service. Wisconsin State Statues 101.14 (b), states "The chief of every fire department shall provide for the inspection of every

public building and place of employment to determine and cause to eliminate any fire hazards or any violation of any law relating to fire hazards or the prevention of fires." (Wisconsin Statues,1994, pg.2125). This State of Wisconsin statue has mandated that the Appleton Fire Department conduct fire inspections to determine the elimination of fire hazards. The statues further mandate in Statue 101.14 (c), "the chief of every fire department shall provide that the inspections required under par. (b) be made at least once in each nonoverlapping six month period per calendar year in all of the territory served by his or her fire department" (Wisconsin Statues, 1994, pg.2125). As it is a requirement to conduct fire inspections of all places of employment and public building, the Appleton Fire Department instituted an inspection program to meet the mandated requirements. A review of the current data provided by the Appleton Fire Department shows a 25% backlog in inspections for the first five months of 1998.

History of Fire Prevention in the Appleton Fire Department

conducting of fire inspections.

The completion of fire inspections by members of the Appleton Fire Department dates back to the late 1800's. These inspections were conducted by fire wardens who would inspect property and write written notices to those in violation of city ordinances. "A major concern dealing with keeping or depositing ashes, barrels or other rubbish in and around buildings arose"

(Appleton Fire Department Book Committee, 1993, pg.42) It was evident that the Appleton Fire

Department placed a high importance on fire inspections prior to the creation of statues mandating the

Following the history of the Appleton Fire Department Fire Prevention division, numerous

additional fire inspector positions were added throughout the years to address the increase amount of inspections as the city continue to grow. This growth however, created a problem for the fire prevention division in completing the required inspections in the appropriate time frames required by state statue.

According to Battalion Chief William P. Schultz, Retired Fire Marshal Appleton Fire Department, "Inspections required by the State of Wisconsin were not getting done" the departments attitude to not completing the inspections was "Don't rock the boat". (W.P. Schultz, personal communication April 3, 1998).

In 1986, the attitude of the department changed with the appointment of a new Fire Chief. Chief Richard Davis placed a higher degree on the importance of fire prevention, "As we shift from the traditional role of reactive firefighters to proactive fire protection specialists, the quality of life and Appleton's community livability will continue to increase." (Appleton Fire Department Book Committee, 1993, pg.1). Chief Davis implemented an Engine Company fire inspection program in 1986. According to William Schultz, "The main reason for the program was a change in the enthuses towards fire prevention." "The engine company inspection program assisted with the completion of the state mandated fire inspections and increased engine company productivity." (W.P. Schultz, personal communication April 3, 1998).

Current concerns of the engine company inspection program

Since the inception of the engine company fire inspection program, many changes have occurred within the Appleton Fire Department which have affected the operation of the program. Since 1986, the City of Appleton has grown in service area. The department has also instituted additional service

programs including public fire education, confined space rescue, regional hazardous materials response.

On July 1, 1998, an emergency medical first responder program will be added. Current data identifies that this program will increase the response to service calls by 100%.

As a result in these changes, the department now finds itself in a position of reallocating resources to meet the demands of the additional workloads that are associated with the changes made in the areas of provided services. As program manager of the fire inspection division, my concerns have grown over the last two years in our ability to continue to accept new program areas and still meet the requirements mandated by the State of Wisconsin pertaining to inspection frequency. This has been identified as a current problem and is the reason for the research for this paper. The research in this paper relates to the Organizational Change and Development unit of the Executive Development class taught at the National Fire Academy. The research will attempt to identify current program needs and recommendations necessary to continue to meet the state mandated requirements.

LITERATURE REVIEW

There were four types of literature information sources used for gathering information for this research project. First there was a review of information from periodicals, trade journals and papers from the Learning Resource Center at the National Fire Academy (NFA) in Emmitsburg, Maryland and the City of Appleton Public Library. Second, was statistical data gathered from the computer records of the Appleton Fire Department. Third was a survey of 60 members of the Appleton Fire Department

asking questions pertaining to the current Engine Company inspection program. Fourth, an interview was conducted on April 3, 1998 with Battalion Chief William P. Schultz, Retired Fire Marshal Appleton Fire Department. The purpose of the review was to identify information that could be utilized in answering the questions pertaining to the research project.

Benefits of engine company inspections

Before determining if engine company inspections are beneficial to the Appleton fire department, a review was conducted to answer if engine company inspections were beneficial to the fire service? According to Fire Chief Donald Mcmath, "fire departments can increase the number of business inspections performed without an increase in personnel by using engine company personnel. They will become more familiar with the building types, construction and contents." Chief Mcmath continues that "this program will allow a better image of the fire department to develop and building managers to become more fire safety conscious." (Mcmath, 1991, pg.iii.).

Another look at engine company inspections has to be directed at the productivity and the public opinion of the fire service. According to William P. Schultz, Retired Fire Marshal Appleton Fire Department, "a major deciding factor in implementing the engine company inspection program in the Appleton Fire Department was productivity." "For years we heard statements made by local politicians that the fire department sits at the station and waits for calls, they aren't very productive." "As budget monies became harder to obtain, productivity and image had to be evaluated." (W.P. Schultz, personal communication April 3, 1998).

According to Gary L Schultz, "In today's fire service, as in private business, the top priority is

effectiveness, cost efficiency and productivity." (Schultz, 1991, pg.1). Gary Schultz continues to state that "those fire departments that only provide fire suppression services should reconsider their role in the community." "Executive Fire Officers should promote company inspections as a first step in providing more productivity by the fire service and a greater justification for support from the community".

Battalion Chief Paul Dextras states "fire prevention inspections are the most important non-fire fighting activity." He continues "contemporary thinking on this subject agrees that the fire service should be more prevention minded." (Dextras, 1992, pg.i). Chief Dextras states that "If the fire service is truly proactive, the concept of prevention should be the primary importance. Due to limited resources, response times, construction methods and human capabilities, a fire department that is suppression oriented is truly flirting with imminent danger." (Dextras, 1992, pg.1).

"To improve the image of the fire service, boost productivity and utilize personnel during nonemergency time, fire departments have instituted a number of programs and activities at the company level. One very popular program has been engine companies conducting fire prevention inspections." (Lugo, 1994, pg.1).

Additional benefits of the engine company fire prevention inspection programs were identified while conducting the literature review. These benefits included the knowledge gained by company fire officers on building construction features, building special hazards, building processes and the storage of hazardous materials. "The activities of pre-fire planning go hand-in-hand with those of inspection. Not only are the general activities similar but the basic information gathered to be analyzed is almost identical. It makes good sense administratively and operationally to combine the two tasks whenever

possible." (International Society of Fire Service Instructors, 1987. Pg.4).

Mandated requirements for fire inspections

To understand the mandates pertaining to the conducting of fire prevention inspection a review was conducted of Wisconsin State Statues and Administrative Codes. According to Wisconsin State Statues 101.14 (b), "The chief of every fire department shall provide for the inspection of every public building and place of employment to determine and cause to eliminate any fire hazards or any violation of any law relating to fire hazards or the prevention of fires." (Wisconsin Statues,1994, pg.2125). The statues further mandate in Statue 101.14 (c), "the chief of every fire department shall provide that the inspections required under par. (b) be made at least once in each nonoverlapping six (6) month period per calendar year in all of the territory served by his or her fire department" (Wisconsin Statues, 1994, pg.2125).

The Wisconsin State statues also identified that additional requirements could be found in the administrative rules created by the Wisconsin Department of Commerce. In section Comm. 14.02 "Duties of the Fire Department" section two states "The chief of every fire department shall provide for the inspection of every public building and place of employment to determine and cause to eliminate any fire hazards or any violation of any law relating to fire hazards or the prevention of fires." (Wisconsin Administrative Code Fire Prevention, 1996, pg.2) The code continues by stating in section Comm 14.02 (2) (b) that the "chief of the department is responsible for determining the number of public buildings and places of employment to be inspected in each municipality for which the fire department has authority."

The administrative code section Comm 14.02 (2) (c) reiterates the requirements that inspections be conducted in nonoverlapping six month intervals as was stated in the Wisconsin State Statue 101.14. However, section Comm 14.02 (d) states that there are a number of exceptions to the required two per year inspections. The administrative code provides the fire department the option of once a year inspections for the following occupancy types. "Offices and clinics if less than three stories, telephone exchanges, places of worship, school buildings, Libraries and museums, hotels and motels not over three stories, Apartments under six units, Convents and monasteries, Detention and correctional centers and storage garages.

The code further provides under section Comm 14.02 (d) (3) "Upon written request by the chief of the department, the State by special order may grant an exception to a city, village or town to conduct less frequent inspections than required by the code.

Statistical review

As part of the literature review, a review was also conducted of the statistical data on the growth of the City of Appleton over the last ten year period. From 1987 to 1997, the city has grown by 15%. A statistical review was also gathered from the fire prevention division of the Appleton Fire Department pertaining to the inspection history over the last ten years. This review identified that there has been a 8% increase in conducted inspections and a 18% increase in time commitment to conduct the inspections. A review conducted on the first 5 completed months of 1998 identified that the department is currently 25% behind in the completion of required inspections to date. According to William P. Schultz, "we have continually seen an increase in delays in completing the required

inspections as a result of time commitments of other program areas. When we first implemented the engine company inspection program, it had no competition for time, now it competes against other established programs." (W.P. Schultz, personal conversation, April 3, 1998).

Quantity verses Quality

A major concern associated with mandated inspection frequencies, is what quality of inspection is being conducted when the engine companies get behind in inspections completion. Inspection quality drops and the engine companies are generating numbers instead of true quality fire prevention inspections. "When engine companies can't get all their fire inspections done, it doesn't make sense to treat all occupancies equally." (Donner, Fire Chief Magazine, 1997, pg 100).

Engine companies begin selecting inspections by the time commitment needed to complete them. "We

Engine companies begin selecting inspections by the time commitment needed to complete them. "We found that the quality of inspections greatly decreased when engine crews got behind of schedule and were trying to catch up." (W.P. Schultz, personal communication, April 3, 1998).

"Company officers assigned too many inspections will 1) run out of time, 2) intentionally blow off complex inspections or 3) do quick and sometimes sloppy inspections in an effort to meet a quota."

(Donner, Fire Chief Magazine, 1997, pg 100-102).

PROCEDURES

Several steps were taken to evaluate the engine company inspection program of the Appleton Fire Department. These steps included an evaluative survey method a interview with Retired Fire Marshal William P. Schultz and a review of the statistical data generated by the Appleton Fire Department.

The evaluative survey (see appendix A) sampled the opinion of 60 members of the Appleton Fire Department regarding their opinion of the performance and problems associated with the engine company inspection program. The survey contained 15 questions which solicited responses to numerous components of the engine company inspection program.

A compilation of the year end summary of engine company inspections was obtained from the Appleton Fire Department computer program for 1988-1997. From the data available, a comparison was made to identify potential trends in the amount of inspections being conducted by engine company personnel. This information was compared with additional information pertaining to the time commitment and availability of the engine companies.

It should be noted that upon completion of the survey numerous limitations were observed. Sixty surveys were randomly distributed throughout the department. This represented a sampling of the 86 members currently involved in conducting engine company inspections. According to R.V. Krejcie and D.W. Morgan, to assure a 95% confidence level, surveys should have been distributed to 70 members of the 86 involved in the inspection program. (Krejcie and Morgan, 1970, pg.30, 607-610.)

It was also discovered that numerous questions were not answered as the individuals did not

have adequate knowledge to respond. Question number 10 was added to solicit information pertaining to the opinion of time allocation for numerous programs. This question became difficult to tally because of the many additional write in answers. The information solicited in question 10 was not utilized for this report. Two surveys were discarded because they were not properly completed.

Also identified as a limitation is that fact no survey mechanisms were utilized to identify what exterior respondents would have felt about the current engine company program. It should be noted that a customer survey is currently being developed to evaluate all of the Appleton Fire Department programs. This survey will be distributed in the fall of 1998.

A limitation of the evaluation of statistical data was noted when comparing statistics of violations documented for past years, it was discovered that inaccurate numbers were provided for 1988, 1990 and 1991. As a result of this inaccurate data, the decision was made not to compare violation numbers in this report. Also identified as a limitation is the fact that all data review was for the years 1988-1997. Computer record keeping programs were begun in 1988. Prior to that time, inspection data was not properly tallied and available.

RESULTS

A total of 60 surveys were distributed to the 86 members of the Appleton Fire Department who are involved in conducting engine company inspections. This represents 70% of the members of the department who were surveyed for their opinion of the engine company inspections program.

Question 1 solicited a response of those surveyed to the idea of the fire service in general conducting company level fire inspections. Seventy-two of the respondents felt that it was a good idea. Twenty-four percent were neutral and three percent felt that engine company inspections were a bad idea.

Question 2 was more direct in soliciting the opinion of those surveyed if the Appleton firefighters should be involved in fire prevention inspections. Sixty eight of the respondents felt that it was a good idea. Twenty-seven percent were neutral and three percent felt is was a bad idea.

Question 3 was asked to solicit the opinion of the respondents to the level of training currently provided to the Appleton firefighters. Sixty-two percent of the respondents stated that they felt the level of training was adequate. Thirty-six percent stated that not enough training was being provided.

Question 4 was asked to solicit the opinion of the respondents if any additional helpful information was obtained when conducting engine company inspections. Ninety-one percent of the respondents felt that additional knowledge was gained when conducting inspections. Eight percent felt that no additional knowledge was gained. Question 4b was asked as a follow up question to question 4 on the items that the respondents felt they had gained knowledge of items which included; building construction features, hazardous materials, building use and layout, occupancy factors, additional

knowledge of the codes to name a few.

Question 5 was asked to solicit the opinion on how the public felt about the engine companies conducting inspections. Seventy percent of the respondents felt that some of the people appreciated them inspecting. Twenty-two percent felt that most of the people appreciated them. Five percent felt that no one appreciates the engine company inspection. One percent felt that all the people appreciated the engine company inspection program.

Question 6 asked the respondents if they felt the firefighters were doing an adequate job in conducting inspections. Seventy-four percent felt that an adequate job was being done, while twenty percent felt that an adequate job was not being done. Five percent of the respondents did not answer this question. Question 7 was not tabulated in the results due to the fact that only fifty percent of the respondents answered the questions.

Question 8 was asked to determine the opinion of the respondents to the amount of time provided to do an effective job of conducting engine company inspections. Fifty-three percent of those asked stated that not enough time is available to effectively conduct inspections. Forty-three percent felt that the time provided was adequate and three percent did not respond to the question.

Question 9 was asked if the frequency of inspections should be reduced to less than twice per year. Sixty-five percent of those surveyed stated that the inspections should be reduced to less than twice per year. Thirty-two percent felt that inspection frequency should not be reduced and one percent of those surveyed did not respond to the question. Question 9b was a follow up question to Question 9 asking those surveyed to identify those buildings which should be reduced below twice per year

inspections. One hundred percent of those surveyed felt that office facilities could be inspected once per year. Ninety-seven percent felt that stores could be inspected once per year. Ninety four percent felt that warehouses could be inspected once per year. Ninety percent felt that taverns could be inspected once per year. Eighty-eight percent felt that factories could be inspected once per year. The percentages dropped for hospitals, nursing homes, college residential facilities and schools to about seventy percent felt these facilities could be inspected once per year.

Question 10 and 11 were identified as problem questions and the information for these questions were not tabulated. Question 12 solicited information regarding the opinion of the value to businesses of the engine company inspection program. Forty-eight percent of the respondents felt that there was some value to the company fire inspection program. Twenty seven percent felt there was high value of the program. Fifteen percent felt there was little value and three percent felt there was no value.

Question 13 asked those surveyed if they felt that the city fire loss was reduced as a result of the engine company inspections program. Thirty-two percent felt that the fire loss was reduced very much as a result of the program. Forty-six percent felt there was some reduction, seventeen percent felt there was a little reduction and 1 percent felt there was no reduction.

Question 14 asked the respondent if they could make the decision on the future of the engine company inspection program what would they decide. Seventy-four percent felt that the program should continue with a reduction in the current number of inspections, seventeen percent felt that the program should remain the same, three percent felt that the program should be increased and five percent felt that the program should be eliminated. Question 15 was a general comment section and was not tabulated in

the results or included in the research paper.

A review of the statistical data obtained from the Appleton Fire Department computer records identifies the increase in time commitment of inspections, number of inspections and increase of service response calls. Table 1 found on page 23 provides a breakdown of the available statistics gathered as a result of the review of statistical data. Inspection times were generated by computer and calculated on a two person inspection team which is the current policy of the Appleton fire department. A review of the data collected identified that there was a twenty four percent increase in calls for service between 1988 and 1997. An eighteen percent increase in inspection time between 1988 and 1997 and an eight percent increase in conducted inspections between 1988 and 1997. Over the ten year period evaluated, there were numerous years with a slight increase or decrease in inspection numbers. No correlation could be found to explain the changes in these numbers.

DISCUSSION

It was overwhelmingly identified through the literature review that engine company fire inspection programs are beneficial for the fire service. Seventy-two percent of the Appleton firefighters surveyed agreed with this opinion. In the current times of fiscal restraints, the fire service must strive to be effective, cost efficient and productive. The days of sitting in the fire stations and waiting for calls is gone. Those departments which are only suppression orientated should reconsider their role in the community. Chief Richard Davis summed it up the best by stating "as we shift from the traditional

reactive firefighters to proactive fire protection specialists, the quality of life and Appleton's community livability will continue to increase." (Appleton Fire Department Book Committee, 1993, pg.1). Not only are we more productive, It is my belief that we are improving the quality of life and reducing the ravages of fire.

In addition to the benefits of the engine company fire inspection program for the business owners, it has been identified as very beneficial to the firefighters. Ninety-one percent of the Appleton firefighters surveyed identified that they had learned additional information while conducting engine company inspections. Some information identified as valuable included building uses, building construction features, hazardous material storage practices and pre-fire planning. Pre-fire planning and engine company inspections go hand in hand. They provide beneficial information which when combined creates a safer community for both the citizens and our firefighters.

An item also identified while conducting the research for this paper was the concern of the amount of education provided for the firefighters on conducting inspections. Thirty-six percent of those surveyed felt that they are inadequately trained to conduct inspections. Employees can not be placed in a position of inspecting without the necessary knowledge required to properly conduct the inspections. By providing the necessary education, not only are we better preparing the firefighters to do the inspections, but we are creating a situation that will encourage a higher quality of inspection. This increased knowledge may also assist in changing the firefighters opinion that was identified through the survey that the public does not appreciate the fire inspection program.

One problem that was identified in the research for this paper was the firefighters concern for

the amount of time available to effectively conduct the inspections assigned to them. It appears that this concern is generated from the backlog which is occurring due to the increases in other program areas. What must be addressed is the mandates that have been placed on the department by the statues of the State of Wisconsin. Mandating the number of inspections and the time frames for which those inspections must be conducted can decrease the effectiveness of the fire inspection program. It was identified in the research that when engine companies fall behind, the quality of inspections begins to decrease. The tendency is to do quick and sometimes sloppy inspections to meet the quota. This problem was not just identified in the review of the Appleton Fire Department company inspection program, but also in other programs nationwide. Inspections should be scheduled on the hazard associated with the business, the type of occupancy and the occupants of the building. By scheduling inspections in this format, we will maintain the quality of the inspection program and not look at a quantity issue.

The Appleton fire department has been involved in inspections since the late 1800's. However, it was identified in an interview with retired Battalion Chief William Schultz that in the past, the required inspections were not completed. This was one reason that the Appleton Fire Department began the engine company inspections program. Recently it has been identified that the increase in service area, increase in programs and the increase in service calls has strained the departments resources to complete the required inspections. On July 1, 1998 the department finds itself implementing an emergency medical first responder program. The initial research identified that this program will increase the service response calls by 100 percent. This program will place additional hardship on the ability to

complete the required inspections.

The first thought in solving this dilemma would be to add additional personnel to provided the needed resources to maintain the required two per year inspections. This has been attempted over the last five years. Currently the cities growth plan has identified the need for an additional fire station and personnel for the year 2000. This projection has been delayed twice over the last two years. The addition would help alleviate the problem, but it does not address the concerns we currently have. A review of the statistic identified that currently for the first five months of 1998, there is a twenty-five percent backlog on inspections. The problem must be addressed now. It can't wait until the year 2000.

RECOMMENDATIONS

After final analysis of the information gathered through the sample survey and the literature review, I would like to make the following recommendations.

The Appleton Fire Department continue to provide an engine company fire prevention inspection program. The emphasis of this program should be placed on the importance of fire safety education and code compliance not code enforcement.

The Appleton Fire Department increase the amount of time provided for the continued education necessary for firefighters on fire inspection principles and code education. The Appleton Fire Department encourage participation in the outside fire prevention programs available from the State of Wisconsin and the National Fire Academy.

The Appleton Fire Department review its current list of inspect able properties and utilize section Comm. 14.02 (d) of the Wisconsin Administrative code, which allows an exception for the twice per year mandated inspections based upon building occupancy type. This changing of the frequency of inspections should not be solely based upon occupancy type allowed by the code, but on the current recorded enforcement history of each site.

The Appleton Fire Department implement an annual evaluation program to identify increases in code violations or fire frequencies in facilities which have been reduced to once per year inspections. Should this evaluation identify an increase in fire prevention code violations or fire occurrences, the frequency be return to its original twice per year.

The Appleton Fire Department conduct a random survey of the current inspect able property owners to identify their concerns and comments on the current engine company inspections program.

REFENENCES

- Appleton Fire Department Book Committee. (1993). <u>Appleton Fire Department Centennial</u> 1894-1994. Appleton, WI:
- Dextras, P. (1992, April). <u>Fire Prevention as a Priority Mission in the Fire Service</u>. (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.
- Donner, L. (1997, April). A better way to manage company inspections. <u>Fire Chief Magazine</u>. Overland Park, KS: Intertec Publishing.
- Evitts, M. (1993, December). <u>Engine Company Inspection program implementation and analysis.</u> (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.
- International Society of Fire Service Instructors. (1987, January) <u>Combining the related tasks of inspection and pre-planning.</u> Inspect-O-Gram, Volume VI, Issue 1. p.4.
- Krejcie, R.V. and D.W. Morgan. (1970). <u>Determining sample size for research activities</u>. Educational Psychological Measurements, pg. 30, 607-610.
- Lugo, D. (1994, October). <u>An evaluation of Company Inspections conducted by the Bakersfield Fire Department.</u> (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.
- Mcmath, D. (1991, May). <u>Development of an Engine Company Business inspection program.</u> (Executive Fire Officer Research Paper) Emmitsburg, MD: National Fire Academy.
- Schulty, G. (1991, May). <u>Company inspections a step towards fire department productivity.</u> (Executive Fire Officer Research Paper). Emmitsburg, MD: National Fire Academy.
- Wisconsin Administrative Code. (1996). <u>Fire Prevention Comm 14.</u> Madison, WI: Department of Commerce.
 - Wisconsin State Statutes (1994). Wisconsin Statutes. Madison, WI: pg. 2125.

APPENDIX 1

Appleton Fire Department Inspection Program Questionnaire

Please answer the following questions as they pertain to the Appleton Fire Department Fire Prevention inspection Program. Base your answers on YOUR feeling or opinion concerning each question. The information gather in this questionnaire will be used to evaluate the current Fire Prevention Inspection Program. **Please do not put your name on this form.**

| | Please circle only one answer unless directed to choose more than one. | | | | |
|--|--|--|--|--|--|
| 1. | I believe that, in the fire service in general, the idea of company-level fire inspections is: | | | | |
| | A. A good idea B. I'm neutral on this idea C. A bad idea | | | | |
| 2. | I think that having firefighters in Appleton inspecting businesses in the city is: | | | | |
| | A. A good idea B. I'm neutral on this idea C. A bad idea | | | | |
| 3. Do you think that firefighters in Appleton have had enough training to conduct in | | | | | |
| | A. YES B. NO | | | | |
| 4. | Have you learned anything that you would consider useful while performing Engine company fire inspections: | | | | |
| 4a. | A. YES B. NO If you answered yes, please list some examples of what was learned; | | | | |
| 5. there?: | Do you think that the people you meet while conducting fire inspections appreciate you being | | | | |
| | A. All of them B. Most of them C. Some of Them D. None of them | | | | |
| 6. | Do you think that firefighters do an adequate job in inspecting the businesses assigned to | | | | |
| them? | A. YES B. NO | | | | |

| 7. | Do you think the number of inspections are fairly distributed between all Districts? | | | | | | | |
|-------------|--|---|------------|--------------------------------|-----------------|---|----------|--|
| 8. | A. YES Do firefighters I to their district? | B. NO hters have enough time to do an effective job of inspecting businesses assigned strict? | | | | | | |
| | A. YES | B. | NO | | | | | |
| 9. | Should our free | quency of ins | pections l | oe reduced to | less than tw | o per year? | | |
| | A. YES | B. | NO | | | | | |
| 9b. | o. If you answered yes, of the below listed occupancy types, which should stay at twic more per year? (Circle those which should stay more often per year) | | | | | | vice or | |
| | Schools College Resider Taverns | Hospitals ntial Facilities Warehouses | 3 | es Factories Nursing Homes: | - | nents Stores High Hazard Build | dings | |
| 10. | choose; (assign | a number ac | cording to | o your choice | e, ie: Training | more time on woulg 1 Inspections 2 P Emergency Response | ub Ed 3) | |
| 11. 11b. | In your opinion Was this? | , how many l A. Too muc | | your compan B. about ri | | nspections last mon C. not enough | nth? | |
| 12. | Do you think the company fire inspection program is of value for the Businesses in Appleton? | | | | | | | |
| | A. High Value | B. some val | ue C. Lit | tle value | D. No | value | | |
| 13. | Do you think the company fire inspection program has reduced fire loss in the City of Appleton? | | | | | y of | | |
| | A. Very much | B. S | ome | C. A Little | D. Not | at All | | |

- 14. If you could make the decision in regards to the company fire inspection program, would you?
 - A. Add More Inspection time and increase inspection frequency
- B. Keep it as it is

C. Keep it but reduce the number of inspections

D. eliminate it

15. Please list any ideas which you feel would improve the company fire inspection program.

Thank you for your time, your input is greatly appreciated!!

TABLE 1

STATISTICAL COMPARISON APPLETON FIRE DEPARTMENT 1988-1997

| YEAR | INSPECTIONS CONDUCTED | INSPECTION TIME (HRS) | SERVICE CALLS |
|------|--------------------------|--------------------------|------------------|
| 1988 | 3784 | 2400 | 1137 |
| 1989 | 3826 | 2290 | 1150 |
| 1990 | 3865 | 2300 | 1166 |
| 1991 | 4003 | 2340 | 1132 |
| 1992 | 3946 | 2300 | 1124 |
| 1993 | 3799 | 2320 | 1083 |
| 1994 | 4055 | 2550 | 1198 |
| 1995 | 3986 | 2776 | 1281 |
| 1996 | 3974 | 2674 | 1386 |
| 1997 | 4088 | 2906 | 1496 |